

REMARKS

The Office Action mailed November 11, 2004 has been carefully reviewed and the foregoing amendment has been made in consequence thereof.

Claims 1-18 are now pending in this application. Claims 1-18 stand rejected. Claims 1, 6, 11, 12, 15, and 16 have been amended. No new matter has been added.

The defectiveness of the oath or declaration is respectfully traversed. Applicants submit a supplemental oath or declaration to correct the defect in the oath or declaration.

The objection to the drawings is respectfully traversed. Applicants have amended the specification to delete a reference numeral '132'. Applicants have also amended Figure 7. Accordingly, Applicants respectfully request that the objection to the drawings be withdrawn.

The objection to the specification is respectfully traversed. Applicants have amended the specification. Accordingly, Applicant respectfully requests that the objection to the specification be withdrawn.

The rejection of Claims 12-18 under 35 U.S.C. § 112, first paragraph, is respectfully traversed.

Applicants respectfully submit that the specification meets the requirements of Section 112, first paragraph. Specifically, Applicants respectfully submit that the specification, including the figures, would enable one skilled in the art to make and/or use the invention as described in the present patent application.

The Office Action suggests on page 3 that Claim 12 recites a single means and therefore, under MPEP § 2164.08(a), Claim 12 is subject to an undue breadth rejection. Applicants respectfully submit that Claim 12 is not a means-plus-function claim. A claim element that does not include the phrase "means for" or "step for" will not be considered to invoke 35 U.S.C. § 112, sixth paragraph (MPEP § 2181). Claim 12 does not include the

phrase “means for” or “step for”, and therefore is not a means-plus-function claim. Accordingly, Applicants respectfully submit that MPEP § 2164.08(a) does not apply to Claim 12. Moreover, Applicants have amended Claim 12. Claims 13-18 depend from independent Claim 12. Accordingly, Applicants respectfully request that the rejection of Claims 12-18 under Section 112, first paragraph, be withdrawn.

The rejection of Claims 1-18 under 35 U.S.C. § 112, second paragraph, is respectfully traversed. Applicants have amended Claims 1, 6, and 12. Claims 2-5 depend, directly or indirectly, from independent Claim 1, Claims 7-11 depend, directly or indirectly, from independent Claim 6, and Claims 13-18 depend from independent Claim 12. Accordingly, Applicants respectfully request that the rejection of Claims 1-18 under Section 112, second paragraph, be withdrawn.

The rejection of Claims 12-18 under 35 U.S.C. § 112, second paragraph, is respectfully traversed. Applicants have amended Claim 12. Claims 13-18 depend from independent Claim 12. Accordingly, Applicants respectfully request that the rejection of Claims 12-18 under Section 112, second paragraph, be withdrawn.

The rejection of Claims 1-5 under 35 U.S.C. § 101 as being directed to non-statutory subject matter is respectfully traversed. Applicants have amended Claim 1 and Claims 2-5 depend, directly or indirectly, from independent Claim 1. Accordingly, Applicants respectfully request that the Section 101 rejection of Claims 1-5 be withdrawn.

The rejection of Claims 1-18 under 35 U.S.C. § 102(b) as being anticipated by Aldrich et al. (U.S. Patent No. 5,138,698) is respectfully traversed.

Aldrich et al. describe a wire path that is designed by first creating other points offset from a frame (60), and connecting the points to form line segments (63). The collection of the line segments is called the wire path. The wire path may optionally be further designed by creating circular arcs (82) curves, not shown, or splines, at the intersection of line the segments. A mechanical design system, such as CATIA, generates geometrically and

dimensionally accurate computer aided models as well as pictorial cable routing drawings. Wires (100) are created in CATIA 34 by concatenating line segments, curves and splines. This operation can be simplified by using an automatic concatenate feature in CATIA. A resulting wire (100) represents an individual wire between two termination points.

Claim 1 recites a method comprising the steps of “generating two-dimensional electronically modeled aircraft engine harnesses from a three-dimensional harness definition that includes a plurality of connector fittings coupled together with a plurality of branches, wherein said three-dimensional harness definition defines a harness, said generating the two-dimensional electronically modeled aircraft engine harnesses comprises: defining each of the plurality of connector fittings; determining design parameters of the harness; generating a two-dimensional stick form model from the three-dimensional harness definition; creating, by a processor, a first line that extends from a first one of the plurality of connector fittings to a second one of the plurality of connector fittings; and producing a second line that extends from said first line to a third one of said plurality of connector fittings.”

Aldrich et al. does not describe nor suggest a method as recited in Claim 1. Specifically, Aldrich et al. does not describe nor suggest generating two-dimensional electronically modeled aircraft engine harnesses from a three-dimensional harness definition that includes a plurality of connector fittings coupled together with a plurality of branches, where generating the two-dimensional electronically modeled aircraft engine harnesses includes producing a second line that extends from the first line to a third one of the plurality of connector fittings. Rather, Aldrich et al. describe designing a wire path by first creating points offset from a frame, and connecting the points to form line segments. The wire path may be further designed by creating circular arcs curves, or splines, at the intersection of line the segments. Aldrich et al. further describe that wires are created in a mechanical design system by concatenating line segments, curves and splines. Aldrich et al. also describe that a resulting wire represents an individual wire between two termination points. Accordingly, Aldrich et al. does not describe nor suggest producing a second line that extends from said

first line to a third one of said plurality of connector fittings. Accordingly, for at least the reasons set forth above, Claim 1 is submitted to be patentable over Aldrich et al.

Claims 2-5 depend, directly or indirectly, from independent Claim 1. When the recitations of Claims 2-5 are considered in combination with the recitations of Claim 1, Applicants submit that dependent Claims 2-5 likewise are patentable over Aldrich et al.

Claim 6 recites a modeling system for producing a two-dimensional electronic model of an aircraft engine harness, the system configured to “generate a two-dimensional electronic drawing from a three-dimensional harness definition that includes a plurality of connector fittings coupled together with a plurality of branches, wherein said three-dimensional harness definition defines a harness; create a first line that extends from a first one of the plurality of connector fittings to a second one of the plurality of connector fittings; and generate a second line that extends from said first line to a third one of said plurality of connector fittings to produce the two-dimensional electronic model.”

Aldrich et al. does not describe nor suggest a modeling system as recited in Claim 6. Specifically, Aldrich et al. does not describe nor suggest a modeling system configured to generate a second line that extends from the first line to a third one of the plurality of connector fittings to produce the two-dimensional electronic model. Rather, Aldrich et al. describe designing a wire path by first creating points offset from a frame, and connecting the points to form line segments. The wire path may be further designed by creating circular arcs curves, or splines, at the intersection of line the segments. Aldrich et al. further describe that wires are created in a mechanical design system by concatenating line segments, curves and splines. Aldrich et al. also describe that a resulting wire represents an individual wire between two termination points. Accordingly, Aldrich et al. does not describe nor suggest a modeling system configured to generate a second line as recited in Claim 6. Accordingly, for at least the reasons set forth above, Claim 6 is submitted to be patentable over Aldrich et al.

Claims 7-11 depend, directly or indirectly, from independent Claim 6. When the recitations of Claims 7-11 are considered in combination with the recitations of Claim 6, Applicants submit that dependent Claims 7-11 likewise are patentable over Aldrich et al.

Claim 12 recites a system for generating a two-dimensional electronic model of an aircraft engine harness from a three-dimensional aircraft engine harness definition that includes a plurality of connector fittings coupled together with a plurality of branches, the system comprising “a processor programmed to determine harness design parameters from the three-dimensional aircraft engine harness definition, wherein said three-dimensional aircraft engine harness definition defines a harness, said two-dimensional electronic model of said aircraft engine harness is generated by creating a first line that extends from a first one of the plurality of connector fittings to a second one of the plurality of connector fittings, and said two-dimensional electronic model of said aircraft engine harness is generated by producing a second line that extends from said first line to a third one of said plurality of connector fittings.”

Aldrich et al. does not describe nor suggest a system for generating a two-dimensional electronic model as recited in Claim 12. Specifically, Aldrich et al. does not describe nor suggest a system including a processor programmed to determine harness design parameters from the three-dimensional aircraft engine harness definition, where the two-dimensional electronic model of the aircraft engine harness is generated by producing a second line that extends from the first line to a third one of the plurality of connector fittings. Rather, Aldrich et al. describe designing a wire path by first creating points offset from a frame, and connecting the points to form line segments called a wire path. The wire path may be further designed by creating circular arcs curves, or splines, at the intersection of line the segments. Aldrich et al. further describe that wires are created in a mechanical design system by concatenating line segments, curves and splines. Aldrich et al. also describe that a resulting wire represents an individual wire between two termination points. Accordingly, Aldrich et al. does not describe nor suggest the two-dimensional electronic model of the aircraft engine harness is generated by producing a second line that extends from the first line to a third one

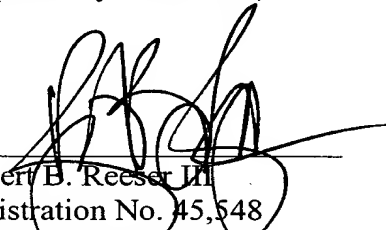
of the plurality of connector fittings. Accordingly, for at least the reasons set forth above, Claim 12 is submitted to be patentable over Aldrich et al.

Claims 13-18 depend from independent Claim 12. When the recitations of Claims 13-18 are considered in combination with the recitations of Claim 12, Applicants submit that dependent Claims 13-18 likewise are patentable over Aldrich et al.

For the reasons set forth above, Applicant respectfully requests that the Section 102 rejection of Claims 1-18 over Aldrich et al. be withdrawn.

In view of the foregoing amendments and remarks, all the claims now active in this application are believed to be in condition for allowance. Reconsideration and favorable action is respectfully solicited.

Respectfully Submitted,



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IN THE DRAWINGS

Applicants respectfully request approval of the following drawing changes. Figure 7 has been amended to change “J-L & G-H” to “G-B & G-H”. Applicants submit a replacement drawing sheet incorporating the changes to Figure 7. Also submitted herewith is an annotated Figure 7, which reflects the requested changes in red ink. No new matter has been added.

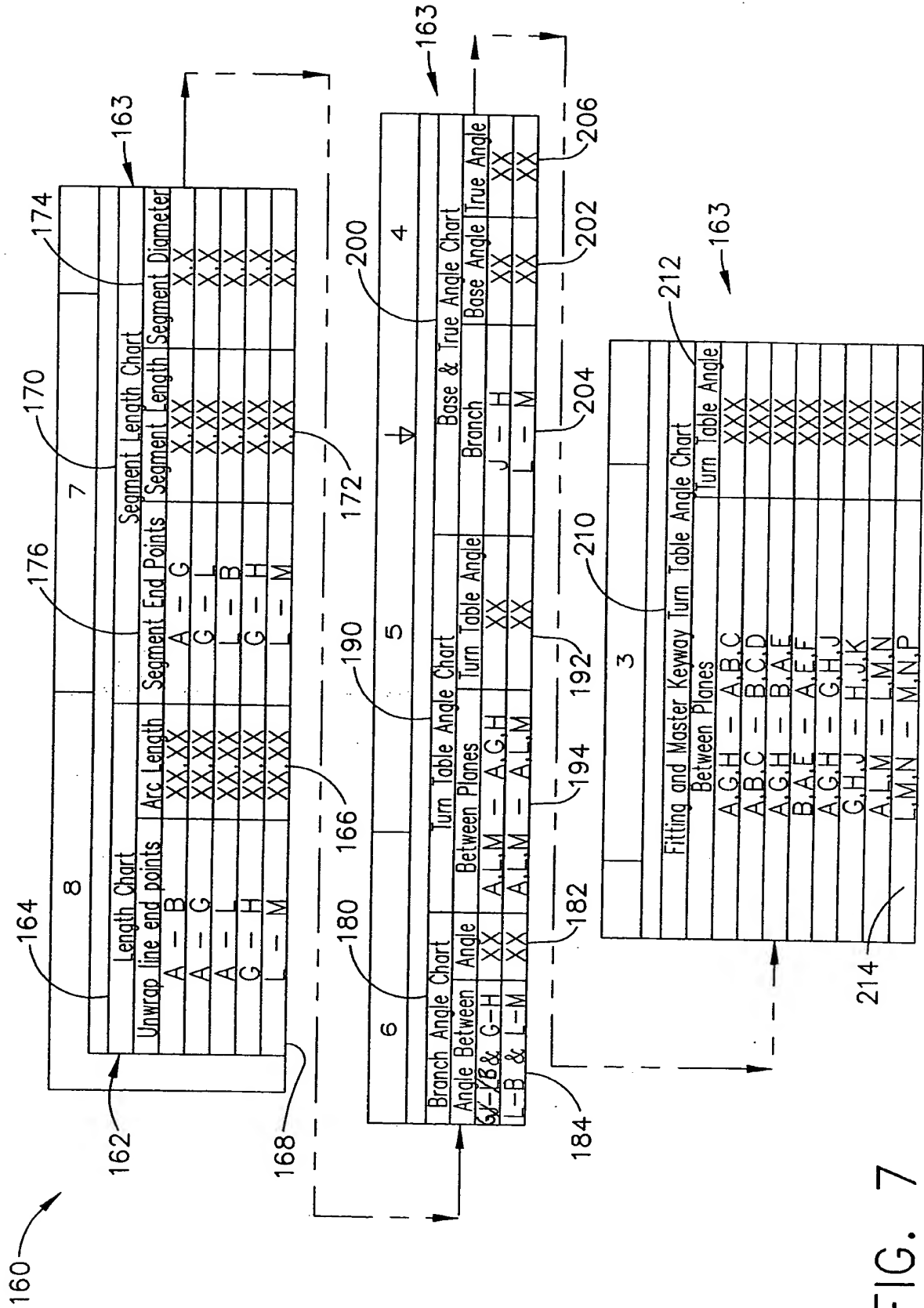


FIG. 7